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(71)Applicant : SEIKO INSTR INC

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(72)Inventor : SAKATA AKIHITO
SAKAI TSUGIO
TAWARA KENSUKE
YOSHIDA HITOSHI

(54) NONAQUEOUS ELECTROLYTE SECONDARY BATTERY

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a nonaqueous electrolyte secondary battery with high voltage, high energy density and excellent charge/discharge characteristics by using a product obtained by heat-treating an oxide of silicon in a non-oxidizing atmosphere.

SOLUTION: In a nonaqueous electrolyte secondary battery comprising at least a negative electrode, a positive electrode and a lithium ion conductive nonaqueous electrolyte, a product obtained by heat-treating an oxide of silicon in an atmosphere of inert gas such as argon, helium, and neon or an atmosphere of reduced pressure at 400-800°C is used as an active material. As the oxide of silicon, a lower oxide in which the ratio of the number of oxygen atoms to the numbers of silicon atoms of less than 2 is used, and silicon monoxide is especially preferable. Thus a negative active material for the secondary battery with long cycle life is obtained.

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